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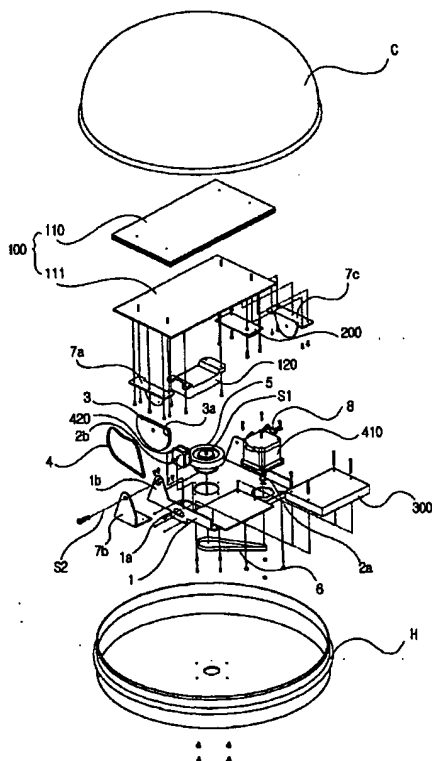
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(54) Title: **IMPROVED ANTENNA SYSTEM FOR TRACKING MOVING OBJECT MOUNTED SATELLITE AND ITS OPER-
ATING METHOD**



(57) Abstract: An improved satellite tracking antenna system mounted to a moving object and a method for operating the same detect and track elevation and azimuth angles of a satellite using only two gyro sensors in a two-axis satellite tracking antenna system, and detect and track an azimuth angle of the satellite using only one gyro sensor in a one-axis satellite tracking antenna system. The antenna system detects the satellite position using two gyro sensors, which are mounted to be orthogonal to each other to a planar axis perpendicular to a satellite-directed target point of the antenna, and continuously tracks the satellite position using a calibration algorithm without using additional absolute angle sensors, resulting in simplified system configuration and reduced production costs.

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